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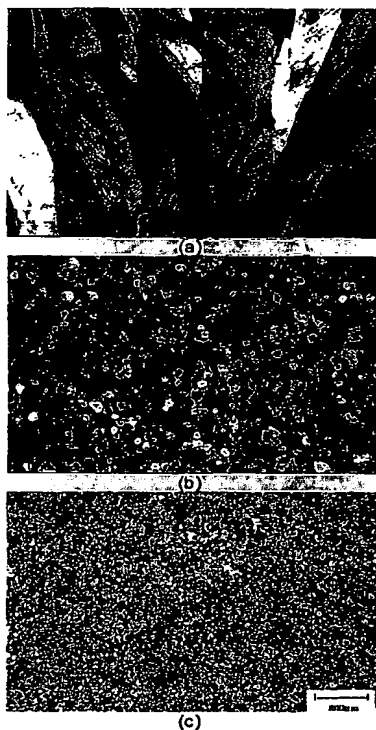
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(54) Title: **MAGNESIUM-ZIRCONIUM ALLOYING**



Optical micrographs showing the grain refining ability of pretreated sponge when added to pure magnesium at 680 °C. All micrographs are of the same magnification. (a) Pure magnesium, (b) after adding 1 wt% sponge followed by 20 minutes manual stirring, and (c) after a further 10 minutes stirring.

(57) Abstract: Zirconium sponge can be chemically depassivated by treatment with hydrofluoric acid to improve the ability of molten magnesium/magnesium alloy to dissolve zirconium from the treated zirconium sponge and to form a melt containing substantially evenly distributed particles of zirconium.

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